Petr Stepanov

Frontend and desktop developer. Web designer.

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Summary

Ph.D. graduate in physics with expertise in computer science. Strong desktop and web application software development background. More than five years in user interface and user experience design. Seeking to apply for a software development position in the industry. Authorized to work in the US on Optional Practical Training (OPT). Will consider visa sponsorship (H1B) offers.

Skills

Essentials. Git, SVN, SSH, Linux, and Terminal usage. BASH scripting. IDEs: Eclipse, Xcode, Visual Studio Code (VS Code). Project Management: JIRA,

Desktop. C/C++ and frameworks: Qt, Fox, CERN ROOT, Geant4. Building from source: GNU make, CMake. Java and Swing. Python.

Frontend. HTML and CSS (LESS, SASS), Bootstrap, responsive web design, JavaScript and jQuery, npm, gulp, Google Web Toolkit (GWT), AngularJS, React.js, and Backbone.js.

Backend. EJS, Java, Node.js.

UI/UX design. Figma, Sketch, InVision Studio, Adobe XD, Adobe Photoshop, Adobe Illustrator, Inkscape, Blender.

Apple iOS. Fundamental Swift skills. User interface development with UIkit and storyboards.

Work experience

Software Developer　　　　　　　　　　　　　　　　　　　　　　　　　　　Jul 2020 — Current

Thomas Jefferson National Accelerator Facility (JLab), Newport News, VA USA

- Applied CERN ROOT framework (C++) to perform statistical analysis of a significant amount (over 100 GB) of the raw experimental data of the Kaon LT experiment at JLab. Link to GitHub.
- Utilized SLURM environment on JLab supercomputer environment to run resourceful particle simulations on multiple computing nodes at the same time. This decreased the wall computation time by more than 10 times.
- Proposed and implemented RAMDisk functionality on the development environment. This lead to an over 60% increase in source code indexing time.

Software Developer (Postdoctoral Researcher)　　　　　　　　　　　　　　Jul 2020 — Current

Catholic University of America (CUA), Washington, DC, USA

- Developing a computer simulation based on the Geant4 framework (C++, CMake, Eclipse IDE, gdb) to study optical properties of a novel scintillation material to be used in the EIC detector system. Link to GitHub repository.
- Teaching experience: mentoring students within a 3-month Research Experiences for Undergraduates (REU) program at the Physics Department at CUA. Giving talks and presentations about Linux Terminal, and supercomputer environment.
- Enhanced debugging of the core library source code lead to opening more than 10 bug reports on the ROOT (C++) forum.

Software Developer (Research Assistant)　　　　　　　　　　　　　　　Aug 2014 — May 2020

Bowling Green State University (BGSU), Bowling Green, OH, USA

- Applied ROOT C++ libraries to write four GUI open-source software for scientific data interpretation.
  - GitHub repositories contain over 10k lines of code in total: TLIST Processor, SW Calculator, RooPositron, LuminApp.
  - Technologies used: CMake, C++, ROOT, Fox GUI and RooFit libraries. Java and Swing.
- Developed static website (Hexo, Gulp, Bootstrap) and visual identity for the SelimLab research group. Website has a 99% Google performance rank and features 700 ms time to interactive metrics.
- Maintained local Apache HTTP server physics.bgsu.edu hosting over 10 websites at the BGSU.
- Created website for the ICPA-18 international conference with registration (over 150 users) and payment system workflow (WordPress, PHP, Recurly.js), and landing pages for events.

Frontend Developer, Freelance UI/UX Designer   Aug 2014 — Current

- Built an online e-commerce store Sticker Store LLC with static website generator (Hexo, Snipcart, Bootstrap, SASS, EJS, Node.js).
  - Improved the Google PageSpeed Insights metrics (CLS, LCP) up to 97%.
  - Created a recursive script to export over 300 products from YAML file to Google Merchant.
  - Optimized SEO. Project reached over 1400 organic monthly users.
- Made iOS application (Swift, UIkit, storyboards) for the We.Team messenger (more than 3k monthly downloads in AppStore). Participated in cloud-based messenger development with enhanced file sharing capabilities (HTML, React JS, SASS).
- Migrated the landing page for Sweetbridge company from WordPress to Jekyll static site generator (Ruby, CSS). This resulted in a 70% improvement in the page load time.
- Developed the front-end part (Angular.js, HTML, LESS) for Lili Social network.
  - Assisted with iOS mobile application (Ionic).
  - Enabled SEO crawling of over 1000 Angular.js pages with Google bot.
- *Web design*.
  - Designed logos, UI/UX prototypes (Figma, Sketch, Illustrator) and branding identity for over 10 different companies.
  - Converted numerous design assets and mockups into responsive HTML and CSS.
  - Mocked up and integrated dozens of cross-browser responsive email templates.

Full Stack Web Developer   Apr 2011 — Aug 2014

Gridnine Systems, Moscow, Russia

- Responsible for the front-end development of the ATH American Express – the largest travel management company in Russia (JavaScript, Backbone.js, and RequireJS). Increased the front-end load time by over 30%.
- Utilized Google Web Toolkit (GWT) Model-View-Presenter (MVP) framework to develop frontend for Otixo cloud file integrator (JavaScript, CSS, responsive design).
- Implemented image processing servlets on the backend to generate banners for five different social networks (PHP, ImageMagic).
- Prototyping conceptual wireframes and UI/UX mockups for numerous web applications (Adobe Creative Suite).

Education

Bowling Green State University   *Bowling Green, OH, USA*   Aug 2014 — May 2020

Ph.D. in photochemical sciences. View dissertation manuscript.

British Higher School of Art and Design   *Moscow, Russia*   Dec 2011 — Feb 2012

Three-month intensive on graphical design and visual communications.

National Research Nuclear University   *Moscow, Russia*

BS and MS in solid-state physics.

Professional networks

- Find examples of my code on GitHub (50+ repositories).
- Check out my design portfolio on Dribbble (50+ shots).
- Discover my professional contacts on Linkedin (230+ connections).
- Skim through the list of my publications on Google Scholar (190+ citations).

Interests

Linux and open-source software. Hosting an open-source project aimed at keyboard remapping under Linux (over 250 stars on GitHub).